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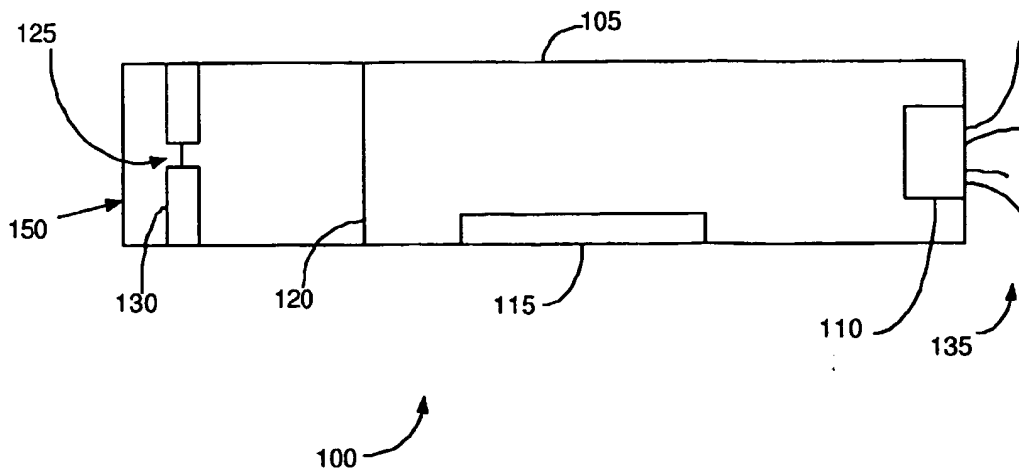
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(54) Title: **MASS SPECTROMETER SYSTEM**



(57) Abstract: A portable mass spectrometer system is described. The system includes a mass spectrometer device incorporated within an evacuated chamber. The chamber includes a permeable membrane located between the mass spectrometer device and an entrance port to the chamber. Located between the membrane and the entrance port is a valve. The valve is provided in a normally closed state and has an open state, such that, in use, the adoption of the open state allows the flow of the sample into the chamber through the membrane and into contact with the spectrometer device.